

**Notice of Allowability**

Application No.

09/974,539

Examiner

Brian Q. Le

Applicant(s)

FUJIEDA, SHIRO

Art Unit

2624

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 09/24/2007.
2. ☒ The allowed claim(s) is/are 1-9.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

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|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                      |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|  | 9. <input type="checkbox"/> Other _____.   |

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 09/24/2007 has been entered.

***Information Disclosure Statement***

2. The Examiner has considered the English translated portions (Remarks pages 5-6) of the Office Action relating to publication No. 61-150080 of the information disclosure statement filed 06/08/2007. However, a complete Official Translation must be provided for a full consideration (please see 37 CFR 1.99, "An English language translation of all the necessary and pertinent parts of any non-English language patent or publication in written form relied upon.") (emphasis added).

### **REASONS FOR ALLOWANCE**

3. The following is an examiner's statement of reasons for allowance:

Regarding independent claims 1 and 4, after considered the English translation portions (Remarks pages 5-6) of the Office Action relating to publication No. 61-150080 of the information disclosure statement filed 06/08/2007, it does not show the limitation of a method/apparatus of inspecting a contour of a target object comprising an obtaining edge code for each of edge pixels by the specified equation as disclosed in claims 1 and 4 in combination with other limitations of the claims.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### CONTACT INFORMATION

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Q. Le whose telephone number is 571-272-7424. The examiner can normally be reached on 8:30 A.M - 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mathew Bella can be reached on 571-272-7778. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Brian Le  
Primary Examiner  
December 3, 2007

## REMARKS

Claims 1-9 currently remain in the application. Claims 10 and 11 are canceled, and no claims are herein amended.

In said Notice of Allowance and Fee(s) Due dated July 16, 2007, the Examiner stated, in Paragraph 2 in page 2 of the Official Letter, that Japanese Patent Publication Tokkai 61-150080, submitted in an earlier filed information disclosure statement, has not been considered because no translation into English was provided for the office action dated January 7, 2004 for the corresponding Japan Patent Application 2001-323906 and hence that the Examiner could not evaluate the relevance of this reference to the underlying invention. The present RCE is being filed, therefore, with a translation of relevant portions of said Office Action such that the Examiner would be able to determine whether or not this reference is relevant to the patentability of the instant application. A translation into English of this reference (Japanese Patent Publication Tokkai 61-150080) has already been submitted.

The portions of said Office Action considered relevant are translated into English as follows:

The Reference (Japanese Patent Publication Tokkai 61-150080) describes calculating the direction of the edge pixel of the gradation image which is the target for detection of defects by making use of the density gradient and detecting a defect by obtaining an angular difference between edge pixels, and since it is well known to detect a defect from the angle of an edge point selected by the width of an uneven part to be detected, it would be obvious to a person skilled in the art to detect a defect by calculating the direction of an edge pixel of a gradation image which is the target for detection of defects by using the density gradient and obtaining an angular difference between edge pixels "selected by the width (corresponding to the "arbitrarily set distance" of this application) of the unevenness to be detected".

and

It is commonly done in this field of technology to make use of a filter mask of a freely selected size according to the conditions of detection when an edge is being detected.

and

Differential direction "e" of a pixel on an edge (or a pixel with edge flag on) in the Reference is equivalent to the direction of edge pixel in the present

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application. It is also known by persons skilled in the art (as described in Japanese Patent Publication 61-009769) that differential direction "e" on an edge pixel is a value indicating the direction of this edge pixel. Thus, it would be obvious for a person skilled in the art to interpret the "angle" mentioned in the Reference as the differential direction "e" used as the value indicative of the direction of this edge pixel and to obtain the difference in differential directions "e" of neighboring pixels with edge flags and to obtain the degree of deformation from the size of this angle (not to obtain the angle of the line connecting the coordinates of neighboring pixels with edge flags on the edge extraction image and to obtain the degree of deformation by the size of the angle. Thus, it would be obvious to a person skilled in the art to calculate the direction of an edge pixel of a gradation image which is the object for detection of defect by using a differential direction and to detect a defect by obtaining the angular difference between edge pixels selected according to the width (corresponding to the freely selected distance of this application) of the uneven part to be detected.

Applicant believes that the claims section in the instant application in the United States has been sufficiently modified and the claim scopes have been significantly changed from the time when the application was originally submitted and hence that the Examiner will find the reasoning presented in this Office Action is largely no longer applicable. In other words, applicant believes that the Examiner will continue to find the present application in condition for allowance even after all the documents submitted in the form of information disclosure statement are considered. Such an action at an early date is earnestly solicited.

Respectfully submitted,



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September 20, 2007  
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